

land, but only at this one spot had I found the *Chaetomorpha*; there could hardly be a more perfect fulfillment of what seemed an improbable prophecy.

MALDEN, MASSACHUSETTS.

RUPTURE OF THE EXOPERIDIUM IN CALOSTOMA RAVENELII.

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THE most interesting find on a recent collecting trip to Falls Church, Virginia, in company with Dr. Heinrich Hasselbring, was a colony of *Calostoma Ravenelii* (Berk.) Masee. There were between thirty and forty plants, in all stages of development, growing up through a clump of moss in moderately damp, chestnut woods. The long coralline bases of the fungus were imbedded in loose, sandy soil underneath the moss. Most of the peridia had pushed entirely through the moss, but a few had reached maturity under ground.

The method of rupture of the exoperidium in *Calostoma Ravenelii* seems never to have been satisfactorily described, although the species is found not uncommonly near Washington, D. C., and elsewhere. The following quotations from recent treatments of *Calostoma* (*Mitremyces*), bear upon this point:—

“ . . . exoperidium remaining attached to the ochraceous endoperidium in the form of irregular warts or scales.”

“ Although Morgan considers the species [*C. Ravenelii*] synonymous with *M. lutescens*, it appears to differ in . . . the peculiar mode of rupture of its exoperidium, which remains attached in scale-like fragments all over the surface of the endoperidium, the Herbarium Curtis specimens agreeing in this respect with those of Berkeley, as figured by Masee, . . . ”

(Burnap, Bot. Gaz. xxiii (1897) p. 190.)

“ Professor Beardsley writes me: ‘ *Mitremyces Ravenelii*, as I have found it in a dozen stations at Asheville, has no gelatinous coat, but is always covered with a scurfy coat which breaks away from the base first, the last piece separating like a cap from the apex.’ ”

“Exoperidium breaking into very small flakes, which usually dry up and remain attached to the inner peridium. . . . At least in our herbarium specimens, this is a very constant character. . . . Endoperidium. . . . usually rough with adnate scales, remains of the exoperidium.”

(Lloyd, Myc. Notes, No. 13 (1903), pp. 123 & 126.)

“The outer peridium of *Mitremyces* is of the nature of a more or less gelatinous volva, It presents three types. In *cinnabarinus*, *insignis* and *lutescens*, it separates from the endoperidium leaving the latter relatively smooth. In *Ravenelii*, *Tylerii*, *orirubra* and *Junghuhni* it breaks into areas and dries more or less as scales on the endoperidium. In *fuscus* it falls off as a cap.”

(Lloyd, Myc. Notes, No. 20 (1905), p. 238.)

In essentials, my own observations at Falls Church confirm those of Professor Beardsley. In dry weather, at least, the exoperidium is not noticeably gelatinous. It is thinnest near the foot-stalks, and thickest in a zone around the mouth. As a result of this differentiation the lower part has too little tensile strength to cohere when shrinkage takes place at maturity. Instead, it breaks into small patches which adhere to the endoperidium,—a character well shown by herbarium specimens. The upper part, however, is thicker and tougher, so that it tears away entire from the upper third or fourth of the endoperidium and drops off as a cap, or as a stellately laciniate plate, leaving a glabrous zone around the mouth. There was a detached cap lying near each mature plant in the colony of *Colostoma Ravenelii* at Falls Church. The brilliant coloring of these caps, inside up on the green moss, was what attracted my attention to the colony. They are vermilion at the center, surrounded by strongly contrasting yellow.

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PLANTS NEW TO VERMONT.—The Vermont Botanical Club held a two day's field meeting July 6–7, 1909, with headquarters at Burlington. The first day was given to Au Sable Chasm, New York, and the second day to the interesting botanizing regions about Burlington, *viz*: the sandy beaches and rocky bluffs of Lake Champlain, the old river bed at High Bridge, and Woodwardia Pond at Fort Ethan Allen.